



# **Synchronous Rectifier Controller**

Parameters Subject to Change Without Notice

#### DESCRIPTION

JW<sup>®</sup>7716 is a synchronous rectifier controller, used for the secondary side rectification of isolation topologies, such as Flyback, Forward, Half Bridge, Full Bridge and LLC converter. By driving an external MOSFET, JW7716 is able to significantly improve the efficiency comparing with the conventional Diode rectifier.

When JW7716 senses  $V_{ds}$  of MOSFET less than -300mV, it turns on the MOSFET. Once the  $V_{ds}$  is greater than -10mV, JW7716 turns off the MOSFET.

JW7716 supports multiple operation modes, such as DCM, CrCM, CCM and Quasi-Resonant. By implementing the Joulwatt proprietary technology, JW7716 is able to handle CCM operation.

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## **FEATURES**

- Supports DCM, Quasi-Resonant, CrCM and CCM operation
- Support the isolation topologies, such as Flyback, Forward, Half Bridge and Full Bridge converter
- Supports High-side and Low-side Rectification
- Output voltage directly supply VCC
- Low quiescent current
- Under-voltage protection
- Fast driver capability for CCM operation
- SOT23-6 package

### **APPLICATIONS**

- Flyback and LLC converters
- Adaptor
- LCD and PDP TV

#### TYPICAL APPLICATION

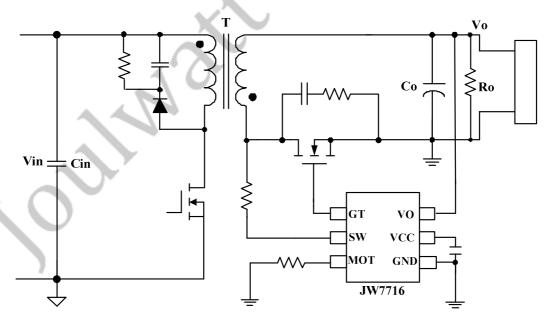


Figure A: JW7716 Typical Application for Flyback Converter.